

EXHIBIT 2

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08/21/2018

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1 IN THE DISTRICT COURT OF THE UNITED STATES

2 FOR THE EASTERN DISTRICT OF MICHIGAN

3

4

5 FARM BUREAU MUTUAL INSURANCE

6 COMPANY OF MICHIGAN, a Michigan

7 Corporation, a/s/o New Flevo

8 Dairy, Inc.,

9 Plaintiff,

10 vs.

Case No. 2:17-cv-14044-BAF-EAS

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13 CNH INDUSTRIAL AMERICA, LLC

14 D/B/A NEW HOLLAND AGRICULTURE,

15 a Wisconsin Corporation,

16 Defendant.

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20 The Deposition of JERRY DAHL, P.E.,

21 Taken at 217 Grandville Avenue, S.W., Suite 302,

22 Grand Rapids, Michigan,

23 Commencing at 9:30 a.m.,

24 Tuesday, August 21, 2018,

25 Before Rebecca L. Russo, CSR-2759, RMR, CRR.

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1 A. It does great things for people.

2 Q. Okay, in what way?

3 A. They provide a variety of engineering services, civil
4 engineering services, land planning development,
5 surveying, and the segment I'm involved with, forensic
6 engineering and fire investigation.

7 Q. When you say "forensic engineering and fire
8 investigation," does that involve litigation
9 consultation?

10 A. It can.

11 Q. What percentage of your practice involves litigation
12 work?

13 A. I don't have a good answer.

14 Q. Is it more than half?

15 A. I don't believe so.

16 Q. The half that does not -- well, let me rephrase that.
17 The portion of your practice that does not
18 involve litigation, describe for me what it is that
19 you do.

20 A. We would be contacted by a client, individual,
21 business owner, insurance company, attorney, to
22 investigate a loss, damage, accident, fire, injury,
23 and to render an opinion in terms of failure, fault,
24 causation. Typically a report is issued, and that
25 wraps up our investigation.

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1 Q. Have you ever been retained by Farm Bureau before this
2 case?

3 A. Yes.

4 Q. Do you have a number, say, more than ten times you've
5 been retained by Farm Bureau?

6 A. Yes.

7 Q. Would it be more than fifty times?

8 A. I don't know.

9 Q. What's the highest level of education you've achieved?

10 A. I have a master's degree of mechanical engineering
11 from Washington University, in St. Louis.

12 Q. What year did you obtain that master's?

13 A. 1983.

14 Q. Where'd you go to college?

15 A. I went to Augustana College, now Augustana University,
16 in Sioux Falls, South Dakota, focusing in mathematics
17 and physics. After three years of attending, I had an
18 opportunity to transfer to either Columbia University,
19 in New York City, or Washington University, in
20 St. Louis, for another two-year period, studying
21 engineering, and at the end of five years both schools
22 grant four-year degrees.

23 So I completed the program at Washington
24 University, in St. Louis, with a bachelor's degree in
25 mechanical engineering, and also having received a

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1 bachelor of arts degree in mathematics and physics
2 from Augustana College, now University.

3 Q. Where is Augustana College?

4 A. Sioux Falls, South Dakota.

5 Q. Oh, you just said that, okay.

6 A. Let me further preface, I grew up on a farm. I've
7 operated farm equipment. I've operated new equipment,
8 old equipment, well-maintained, poorly-maintained
9 equipment. So I have some experiential background in
10 terms of operating farm equipment, and still family
11 members participate in either operating equipment for
12 gainful employment or in the service industry, where
13 they're operating for service companies, or repair
14 companies, or dealerships.

15 Q. Where did you grow up?

16 A. Nebraska.

17 Q. Was there a particular type of farm that you gained
18 your experience on, what type of crops, what type of
19 livestock?

20 A. Dry land farming, corn, soybeans, wheat, alfalfa;
21 livestock, chickens, sheep, hogs, beef cattle.

22 Q. Was your father a farmer?

23 A. Yes.

24 Q. How many acres, approximately, did he raise and farm?

25 A. 240.

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1 incident more recently?

2 A. No.

3 Q. And your title has stayed the same the entire time?

4 A. Yes.

5 Q. I understand from your CV that you are a professional
6 engineer. In what states do you have a license?

7 A. I have a license in Missouri, a license in Michigan,
8 and a license in South Dakota. I've previously held
9 licenses in other states.

10 Q. Are you a certified fire investigator?

11 A. No.

12 Q. Have you ever attended any training seminars on
13 investigation of fires?

14 A. Yes.

15 Q. Have they been provided by a particular organization?

16 A. No.

17 Q. Have you ever attended a NFPA fire investigation
18 seminar training session?

19 A. No.

20 Q. Are you familiar with the phrase NFPA?

21 A. Yes.

22 Q. And when I say NFPA 921, are you familiar with that
23 publication?

24 A. Yes.

25 Q. Do you have any other types of certifications or

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1 Q. The portions that he provided, he's not here to
2 testify. Do you feel qualified and competent to offer
3 those same opinions that he was providing to the
4 report?

5 A. No.

6 Q. Okay. If we get to a particular place where you feel
7 like a certain opinion is something from Dr. Smith,
8 can you tell me where those opinions are?

9 A. I believe so.

10 Q. Okay. And, in particular, it looks like he is a
11 certified fire investigator, he's a certified vehicle
12 fire investigator, and he's also a master automotive
13 technician. Those are certifications or
14 qualifications that you don't possess, is that
15 correct?

16 A. Correct.

17 Q. So as far as investigating the cause of the fire and
18 certain aspects of the origin of the fire, are those
19 areas that you would have to leave to others to offer
20 those opinions?

21 A. Yes.

22 Q. As it pertains to this investigation, what was your
23 role, what were you providing to this report, just in
24 general?

25 A. There was some general discussions with Dr. Smith in

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1 terms of the assignment. Oftentimes, as assignments
2 occur in the office, we speak within generalities,
3 "Yesterday I went to look at this, yesterday I saw
4 this, generally." In drafting the report, there may
5 have been some back and forth with Dr. Smith in terms
6 of documentation relating to what's available to
7 support the report.

8 Upon Dr. Smith's departure, then I
9 completed the report. So it would have been
10 finalizing the report.

11 Q. Was there a reason why the two of you collaborated on
12 this investigation?

13 A. Other than time and availability, not that I recall.

14 Q. Did he have certain areas where he did not consider
15 himself an expert and he needed your assistance to
16 offer expertise in those areas?

17 A. I don't believe so.

18 Q. And then, vice versa, were there areas where he is an
19 expert that you may not be, and you needed his
20 assistance to offer opinions on those areas?

21 A. His particular experience is certification in fire
22 investigation, something that I do not have.

23 Q. Without him to offer testimony -- well, as we go
24 through the report, if there are areas or statements
25 in the report that are related to fire investigation

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1 where they would fall under his umbrella, feel free to
2 let me know. That's what we need to know, is where
3 your expertise starts and stops and where his starts
4 and stops, okay?

5 A. Yes.

6 Q. Do you consider yourself an expert in fire cause and
7 origin?

8 A. No.

9 Q. Do you consider yourself an expert in fire dynamics
10 and how fires spread?

11 A. No.

12 Q. Do you consider yourself an expert in heat transfer
13 from one side of a material to another?

14 A. No.

15 Q. Do you consider yourself an expert in ignition
16 temperatures of particular types of materials?

17 A. No.

18 Q. Do you consider yourself an expert in the operation of
19 farming equipment?

20 A. I don't know that there's a qualification for expert
21 farm equipment operator. I've never seen such a
22 certification available.

23 Q. I'm not necessarily --

24 A. I do --

25 Q. I'm sorry.

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1 A. Those are old.

2 Q. Like sixties, seventies?

3 A. Seventies.

4 Q. And then the Generation II John Deeres, do you have
5 any idea what years those would be?

6 A. Those are late seventies.

7 Q. But as far as whether the turbo on the T8.390 actually
8 operates at a temperature to become red hot, you don't
9 have knowledge?

10 A. I don't have knowledge, specific knowledge.

11 Q. And then as to other components of the exhaust system
12 on the T8.390, you wouldn't know whether they operate
13 red hot or not?

14 A. I wouldn't know, but I doubt they do.

15 Q. And, in fact, you don't know specific temperatures
16 that those components of the entire exhaust system
17 actually operate during full throttle?

18 A. I do not.

19 Q. Have you ever drafted warnings pertaining to the use
20 of heavy equipment?

21 A. No.

22 Q. Do you consider yourself an expert in the drafting of
23 warnings?

24 A. No.

25 Q. What about the drafting of safety instructions?

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1 A. No.

2 Q. What about human factors?

3 A. No.

4 Q. And when I say "human factors," you're familiar with
5 that phrase in the litigation context, is that
6 correct?

7 A. Yes.

8 Q. So you don't consider yourself an expert in how
9 operators will interpret certain warnings, is that
10 correct?

11 A. Correct.

12 Q. And then how they actually will implement the
13 instructions that they are given on a day-to-day
14 basis, you wouldn't be an expert in that, either?

15 A. Correct.

16 Q. Have you personally seen the tractor that was involved
17 in this fire before?

18 A. No.

19 Q. You didn't do a field inspection or an inspection of
20 the unit following the fire?

21 A. No.

22 Q. Do you know if your colleague, Dr. Smith, did?

23 A. Yes.

24 Q. And are you relying, in part, on his observations at
25 those inspections?

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1 A. Yes.

2 Q. And would his observations be encapsulated in this
3 report?

4 A. Yes.

5 Q. And to the extent that there are notes or memos
6 drafted of his observations, those would be in the
7 file that you're talking about?

8 A. Correct.

9 Q. Would he have sent you emails describing what he saw
10 or his thoughts?

11 A. No.

12 Q. Was there a reason why Dr. Smith went to the site or
13 the inspection of the unit and you did not?

14 A. The assignment of our projects typically is a single
15 individual acting as the investigator. So Dr. Smith's
16 assignment would have been for the investigation. I
17 would have been assigned elsewhere.

18 So my assignment at the time of the
19 investigation was something other than follow
20 Dr. Smith.

21 Q. So what was your role in the entire project from the
22 beginning?

23 A. My role in the beginning was nothing. My role in the
24 beginning was this was an assignment to Dr. Smith. So
25 my involvement came as Dr. Smith was departing.

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1 Q. Okay, and that clarifies a lot. I thought you were
2 all working together the whole time, but it sounds
3 like you're saying that you only became involved when
4 Dr. Smith announced that he was departing, is that
5 correct?

6 A. Correct.

7 Q. Okay. When did you first hear about this fire and
8 become involved?

9 A. First heard about the fire would have been
10 contemporary to the general assignment, again, because
11 there's office banter, "Hey, we have a project
12 involving whatever." So my recollection is hazy at
13 that point in time, but, "Dr. Smith's going to
14 investigate a tractor fire." That would have been my
15 first general knowledge of it.

16 Specific involvement, then, would have
17 fallen into June of 2018.

18 Q. So the report is drafted July 19th, 2018, and your
19 involvement would have begun a month before that?

20 A. Roughly.

21 Q. So by June of 2018, Dr. Smith announced that he was
22 leaving the company, and somebody needed to pick up
23 the file?

24 A. Yes.

25 Q. And that person happened to be you?

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1 A. Yes.

2 Q. Is there a particular reason why you picked it up as
3 opposed to someone else?

4 A. I'm very good.

5 Q. Okay. Was it in your area of expertise, or was there
6 some reason why this one happened to fall to you,
7 other than you being good?

8 A. I believe from my particular background of farming
9 equipment, both in investigations here at Nederveld
10 and prior personal experience, it may have been
11 slotted for me.

12 Q. So you haven't seen the tractor individually. Have
13 you been to the location of where the tractor fire
14 occurred?

15 A. No.

16 Q. Have you spoken with any of the witnesses to the fire?

17 A. No.

18 Q. When you became involved in June of 2018, what was
19 your first task that you undertook?

20 A. To make arrangements to meet with Dr. Smith and review
21 the status of the project, the report in progress, and
22 what needed to be completed to issue a final report.

23 Q. How did you go about getting a download from Dr. Smith
24 of all the information that he had already gained in
25 his investigation?

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1 A. I do not.

2 Q. Approximately how much time did you prepare -- let me
3 rephrase that.

4 How much time did you spend looking at
5 these file materials and gathering your thoughts
6 before this report was drafted?

7 A. Zero, because the report was drafted before I assumed
8 the project.

9 Q. So once you became involved, you were just finalizing
10 the report, is that correct?

11 A. Correct.

12 Q. Did you add any particular sections to the report?

13 A. Yes.

14 Q. In general, can you tell me which sections you added?

15 A. On page 3, top of the page, second paragraph,
16 regarding the technical feasibility and production
17 practice for manufacturing, that particular paragraph
18 was my insertion.

19 Q. Is it fair to say that the rest of the report,
20 although you may have edited and tweaked things, it
21 was the work product of Dr. Smith?

22 A. Yes.

23 Q. Do you agree with the remainder of the opinions and
24 the conclusions that are reached in the rest of the
25 report?

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1 type of materials fall?

2 A. They fall at the lesser ignition temperature.

3 Q. So they'd have the lower end of that range?

4 A. Yes.

5 Q. Would you agree that for a surface to ignite material
6 due to contact, the hot surface has to have a
7 temperature that exceeds the ignition point of the
8 material?

9 A. Can you repeat the question?

10 Q. Sure. In order for a hot surface to actually ignite
11 debris, would you agree that the hot surface has to
12 reach a temperature that's in excess of the ignition
13 temperature of the debris?

14 A. No.

15 Q. Okay, why not?

16 A. You can have ignition from radiant heat, so it doesn't
17 have to touch the surface, and that radiant heat
18 accumulates. So very much like focusing a magnifying
19 glass on a surface, the temperature around it remains
20 at room temperature, but that focus of radiant energy
21 accumulates to the point of ignition.

22 So that would be a non-contact ignition
23 from radiant heat.

24 Q. So if the surface, the skin temperature of a
25 particular material reaches, let's just say X degrees,

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1 is it possible for the radiant temperature in the area
2 to be higher than the X temperature of the surface?

3 A. Yes.

4 Q. Okay, in what context, or what would cause that to
5 occur?

6 A. So in the radiant heat, what happens is you're
7 applying energy to a surface, and that energy
8 accumulates until it dissipates, and it can dissipate
9 by conduction, by convection, by radiation itself.

10 Radiation is a poor means of removing heat.
11 So if I have something that is near in proximity to
12 this surface, and it's receiving radiant heat and it's
13 insulated, it will form a combustion pocket.

14 Q. And what do you mean by a "combustion pocket"?

15 A. The area around it is compacted and insulated, such
16 that the energy is focused in a particular area and
17 cannot relieve itself.

18 Does that make sense to you?

19 Q. It does. And so I guess I'm hearing you say that
20 because the energy --

21 A. What happens is the surface is releasing energy. It
22 has a surface temperature, let's say 500 degrees F,
23 okay? It's also radiating heat as part of its heat
24 loss, heat transfer, okay? So in that particular
25 case, what you can do is you can have a surface that's

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1 receiving radiant heat. A sponge; so I have water
2 attacking the sponge. The sponge can reach the point
3 where it's saturated and can't hold any more. That's
4 what I would call combustion.

5 So because of this radiant effect, you can
6 have something that ignites where it's not in direct
7 contact with that surface.

8 Q. So it will cause the temperature in that pocket to --

9 A. To elevate, because you're always adding energy to
10 that pocket.

11 Q. Wouldn't that also cause the surface to become higher
12 in temperature, as well?

13 A. Which surface?

14 Q. The surface --

15 A. The receiving surface?

16 Q. -- that's radiating -- no, the providing or the
17 radiating surface. If the energy -- for instance, in
18 this case we have an SCR canister, and it is emitting
19 heat or radiating heat, correct?

20 A. Correct.

21 Q. And if that heat cannot dissipate in the immediate
22 area around the SCR canister, wouldn't that also heat
23 up and cause the surface of the SCR canister to reach
24 a higher temperature?

25 A. It could.

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1 Q. And so do you still believe that in the context of the
2 gap, a one-inch gap around an SCR canister, do you
3 believe that the debris on the outside of the canister
4 would reach temperatures higher than the surface of
5 the SCR canister?

6 A. It could.

7 Q. Through the radiating process?

8 A. Through heat transfer, where the radiant heat flux
9 overwhelms the ability for that debris to relieve
10 itself either through conduction, convection, or
11 radiation itself.

12 Q. Now, you mentioned a magnifying glass as an example,
13 but that's a little different, right, because it's
14 bringing heat and it's pinpointing it into a
15 particular location, right?

16 A. Not entirely, because what I'm offering with the
17 magnifying glass is everything around there is at
18 temperature, is at room temperature, and the radiant
19 flux through that area is at room temperature. All
20 I'm doing is focusing that. So I'm causing an
21 acceleration of the event, okay?

22 Q. You're focusing the --

23 A. The energy.

24 Q. -- the flux that goes through the glass --

25 A. Correct.

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1 that right?

2 A. That's a possibility.

3 Q. You could have somebody dropping a cigarette butt
4 along the side of the tractor that could cause that
5 fire?

6 A. Yes.

7 Q. Okay. So if the only evidence we have of the cause of
8 the fire is that it started next to the SCR, can we
9 agree that that evidence alone does not establish that
10 heat from the SCR ignited the debris either through
11 contact or through radiant heat?

12 A. In only that context, yes.

13 Q. Do you consider yourself an expert in evaluating and
14 reaching conclusions based on burn patterns?

15 A. No.

16 Q. Are you familiar with burn patterns? Do you see them
17 in other cases?

18 A. Yes.

19 Q. If there is a V burn pattern, does that tell you
20 anything?

21 A. Oftentimes, V patterns are used by fire investigators
22 to locate an origin.

23 Q. But as far as interpreting those V patterns, you would
24 leave that to others?

25 A. That's correct.

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1 design, you're talking about --

2 MR. ROBINSON: Yeah, let me rephrase that.

3 BY MR. ROBINSON:

4 Q. Have you identified any manufacturing defects in this
5 particular unit?

6 A. No.

7 Q. And a manufacturing defect would be any deviations
8 from the specifications of how it should be built as
9 opposed to how it actually was built?

10 A. Correct.

11 Q. And you have not identified any of those?

12 A. I have not.

13 Q. Are you offering opinions today about the sufficiency
14 of the warnings and instructions that CNH provided to
15 its operators?

16 A. No.

17 Q. So you won't be testifying that CNH's warnings should
18 have included additional detail?

19 A. No.

20 Q. Do you believe that the warnings were sufficient to
21 instruct operators on how to appropriately clean this
22 tractor?

23 A. No.

24 Q. You do not believe they were sufficient?

25 A. I don't.

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1 Q. But you -- are you going to be offering that opinion
2 in this case?

3 A. No.

4 Q. Okay. Is there a reason why you're not offering that
5 opinion, even though you hold that opinion?

6 A. I've not seen the particular vehicle itself, so I
7 can't render that specific opinion.

8 Q. But you've seen --

9 A. From the photographs I've seen, obviously there was
10 crop debris still left within the vehicle. So in
11 terms of instruction by the manufacturer to clean
12 particular areas or to expose particular areas, had
13 those instructions been followed, they were
14 incomplete. Had they been followed, material still
15 resided in the vehicle.

16 So I'm not clear whether it's due to lack
17 of maintenance or improper instruction. However, we
18 have an entrapment area that's available on the
19 vehicle, which is a design issue.

20 Q. Okay. Are you offering the opinion that the
21 instructions that CNH provided did not tell the
22 operator to clean that particular entrapment area that
23 you're describing?

24 A. No.

25 Q. And let me expand on that. Mr. Wilson is testifying,

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1 or testified yesterday that CNH should have
2 specifically told operators to make sure to clean in
3 the area immediately around the SCR canister, and
4 CNH's failure to specifically instruct about that area
5 is a warning defect.

6 Do you hold that same opinion?

7 A. I don't have that opinion.

8 Q. So your opinion is there was debris on the tractor
9 that has not been cleaned, but whether that was the
10 result of the operator not following instructions or
11 the instructions not being sufficient, you don't know?

12 A. Correct.

13 Q. Have you had a chance to review the instructions that
14 CNH does provide?

15 A. Cursorily.

16 Q. Are they part of your file materials?

17 A. Yes, we would have that in electronic fashion.

18 Q. And I think during the break you were going to look
19 for additional materials related to Dr. Smith's
20 investigation. Were you able to find anything?

21 A. Yes.

22 Q. What did you locate?

23 A. So I located the physical file, typically what we were
24 working with, and I found three documents which I've
25 copied for our purposes. The first is a single-page

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1 increasing the temperature of the inside surface of
2 the shield?

3 A. Yes.

4 Q. Do you know how much of a gap is between the shield
5 and the canister surface itself?

6 A. Approximately two inches.

7 Q. Is that uniform all the way around the canister?

8 A. Not entirely, because there's convolutions within the
9 fuel tank. Let me offer, it does not appear to
10 intrude shorter than the two inches but extends
11 further than the two inches.

12 Q. Okay. So the closest the surface would be is two
13 inches?

14 A. Yes.

15 Q. Do you know what the melting temperature of the
16 surface of that shield would be?

17 A. No.

18 Q. And when I say "shield," I'm talking about the
19 component around the canister that can be removed to
20 expose the canister. Are you familiar with that?

21 A. Yes, but the canister also has an insulation shroud or
22 shield, also, as well.

23 Q. Okay, so --

24 A. So your discrimination is between the front protective
25 cover or the surrounding insulation blanket.

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1 Q. Okay. So the canister has a blanket all the way
2 around it or just in certain portions?

3 A. In certain portions.

4 Q. Where is that blanket?

5 A. The blanket is where it's facing the fuel tank, so on
6 the bottom three sides.

7 Q. And what is that blanket composed of?

8 A. It's composed of a reflective panel and some fabric
9 insulation and a fabric backing.

10 Q. And does that, that blanket, does it actually touch
11 the canister itself?

12 A. It may.

13 Q. But the two-inch gap that you're talking about, you
14 believe that blanket's in that gap?

15 A. Yes.

16 Q. And it only encapsulates on the three sides that also
17 have the fuel tank?

18 A. Yes.

19 Q. So, in essence, it separates the canister from the
20 fuel tank?

21 A. Yes.

22 Q. What about the side that does not have the fuel tank
23 surrounding it or adjacent to the canister, is there
24 any kind of fabric or blanket there?

25 A. No.

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1 A. Correct.

2 Q. The fuel tank ultimately did breach, but that was the
3 result of an ongoing fire, fair?

4 A. Correct.

5 Q. Okay. So the presence of the SCR next to the fuel
6 tank is, although you may believe it's a
7 less-than-optimal design, it didn't cause this fire?

8 A. Can you repeat the question?

9 Q. The presence of the SCR canister next to the fuel
10 tank, although you believe that less than optimal in
11 design, did not cause this fire?

12 A. Correct.

13 Q. So what is your defect theory as to the design that
14 actually caused this fire?

15 A. The design defect is the entrapment area between the
16 SCR and the next available surface that does not
17 self-clean, and let me further refer to that in the
18 case of the front cover that we discussed earlier,
19 there is a gap under the cover facing groundways, such
20 that if debris would fall in front of the SCR, it can
21 fall through that area.

22 There's nothing to say that that fuel tank
23 that's encircling the SCR could not have had the void
24 space immediately beneath the SCR so there's nothing
25 for anything to accumulate upon.

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1 Q. How much gap is between the blanket and the surface of
2 the SCR?

3 A. Less than two inches.

4 Q. Do you know how thick the blanket is?

5 A. No.

6 Q. Have you looked at any design specifications for the
7 blanket?

8 A. No design specifications have been provided.

9 Q. How do you know that there was a blanket that went
10 around that surface of the canister?

11 A. I would have to assume so, because that's listed in
12 the parts diagram, and exemplar tractors in an
13 unburned condition have a similar blanket.

14 Q. So your theory is that the gap between the surface of
15 the SCR and the blanket allowed for the accumulation
16 of debris that did not self-clean?

17 A. Correct.

18 Q. And you believe the fire did not start on the forward
19 side of the canister, but on the rear side of the
20 canister?

21 A. Correct.

22 Q. And maybe you've already answered this, but I just
23 want to make sure. You can't say whether it started
24 as a result of the heat from the inlet pipe or heat
25 from the surface of the SCR?

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1 Q. So you would agree that: At least once each day and
2 at the end of the day, remove all trash and debris
3 from the machine, especially around hot components
4 such as the engine, transmission, exhaust, and
5 battery, et cetera. That's what it instructs, is that
6 correct?

7 A. Yes.

8 Q. And then later it states: More frequent cleaning of
9 your machine may be necessary depending on the
10 operating environment and conditions. That's the
11 instruction, correct?

12 A. Yes.

13 Q. And you don't have any criticism as to the frequency
14 with which CNH instructs operators to clean around hot
15 components. Is that right?

16 A. I do not.

17 Q. And would you agree that the SCR canister is a
18 component of the exhaust system?

19 A. Yes.

20 Q. And so do you believe that the instruction here
21 adequately instructs operators to clean around the
22 SCR canister?

23 A. No.

24 Q. And in what way do you not agree with that?

25 A. The SCR canister strung by the fuel tank presents an

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1 entrapment area, that in the general revealing of the
2 SCR canister by removing the front cover does not
3 fully expose the entrapment areas, and with the
4 entanglement obstruction interaction with the
5 surrounding blanket may not readily clean from normal
6 cleaning methods, and there may have been a further
7 instruction, make sure you rake behind components,
8 make sure you evacuate this particular ash pit or
9 collection point to remove.

10 So the truly crude example is when my wife
11 tells me to clean the house and I'm done, she starts
12 over and does a different type of cleaning.

13 So when you say "clean the machine,"
14 kitchen clean or operating theater clean? That
15 distinction is not here, and kitchen clean is removing
16 the chunks. So removing the chunks may be sufficient
17 for cleaning. That distinction is not offered in this
18 instruction.

19 Q. And earlier I thought you were -- you testified that
20 you would not be offering any opinions as to the
21 sufficiency of the instructions or warnings. Was I
22 mistaken earlier or ...

23 A. You were not mistaken earlier.

24 Q. Okay.

25 A. Though I've offered it here.

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1 transfer?

2 A. The point at which the SCR canister does not exceed
3 240 C would be a service that would be in proximity to
4 where we believe the fire occurred.

5 Q. I'm sorry?

6 A. So let me offer an example. As the test may be
7 conducted to identify temperature point on the
8 SCR canister, we can have crop debris that is in
9 proximity, in contact or surrounding area, such that
10 the planned/designed/natural convection for the
11 SCR canister to relieve heat is impeded by the debris,
12 such that in a purest test, where the SCR is naked and
13 I can verify no temperature exceeds 240 C, but in the
14 event that I apply crop debris in the area, that that
15 impedes the airflow and I have temperatures reaching
16 300 C in that area, that's a different test, and that
17 would not be picked up by the first virgin test.

18 So, yes, in fact, if in all conditions we
19 can verify through testing or documentation that even
20 with an overburden of crop debris no surface ever
21 exceeds 240, I would agree. But without the benefit
22 of an impairment or a contaminant present, I can't
23 agree with that premise.

24 Q. Now, in this particular model there is no
25 convection -- there's no airflow from the bottom up,

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1 is that right?

2 A. No.

3 Q. So --

4 A. There is airflow.

5 Q. But there's no airflow from the ground up through the
6 bottom?

7 A. The platform terminates before the front cover. So
8 there is an open mail slot at the base of the front
9 cover and the floor of the fuel compartment that
10 allows air to enter and convectively travel through
11 that compartment and up beyond the opening of the top
12 of the cover.

13 Q. If there --

14 A. Now, that convective current only sees the front of
15 the SCR, it doesn't travel behind it, because there's
16 a solid floor beneath it.

17 Q. Okay. So the back of the SCR that we're talking about
18 where you believe the origin of the fire was --

19 A. Yes.

20 Q. -- there's no airflow from that mail slot?

21 A. Correct.

22 Q. And there's no airflow from any other direction, is
23 that correct?

24 A. Correct.

25 Q. Okay. So whether there's debris there or not is not

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1 A. Yes.

2 Q. And did you eliminate that as a potential origin
3 location?

4 A. Let me stop. I am not a fire investigator. I did not
5 determine the origin. In general observation of the
6 progression of the fire in the video provided, as well
7 as the examination of the artifact after the loss, the
8 progression of the fire -- witnessing the fire in
9 progress did not appear to have originated under the
10 cab in the transmission area.

11 Once again, fire burns up and out. And at
12 that point in time the fuel tanks were quite involved,
13 which is unusual for it to be burning up and out from
14 beneath the cab versus somewhere originating near the
15 isothermic SCR.

16 Q. Okay. Would it change your opinion if the first
17 observation of smoke in this case was coming from
18 under the cab?

19 MR. CORETTI: Assuming a fact not in
20 evidence, form of the question.

21 BY MR. ROBINSON:

22 Q. Would it affect your opinion if the first observation
23 of smoke was coming from under the cab?

24 A. No.

25 Q. If the first smoke was coming from under the cab, you

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1 would you expect debris to accumulate in that
2 vicinity, given the open mail slot on the front?

3 A. The mail slot is linear, goes along the front edge of
4 the rectangular platform of the fuel tank. So
5 immediately at the front of the SCR, where that mail
6 slot is open, I wouldn't expect any accumulation. As
7 the SCR is oval, then I would expect that as the ledge
8 beneath the SCR is revealed, I can collect debris on
9 those ledges.

10 Q. So as it starts to turn around, sort of towards the
11 back of the tractor, that's where you would expect
12 there might be debris, sort of underneath of the
13 SCR -- or the inlet pipe?

14 A. The diagram I provided earlier of the fuel tank from
15 Exhibit 28, on page 3 of Exhibit 28, I've drawn an
16 arrow to illustrate where the inlet pipe for the SCR
17 existed, and I see that the floor of the fuel tank
18 protrudes further forward from the centerline of that
19 pipe, which would provide a shelf extending forward of
20 the pipe that would be available to collect debris.

21 Q. And in that location, where the debris would
22 accumulate in that location, there would be airflow
23 from the mail slot that would have prevented that
24 convection reduction, is that correct?

25 A. Yes.

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1 Q. So the surface temperature of the inlet pipe on that
2 side, you would not expect it to be elevated as a
3 result of convection reduction?

4 A. Correct. Back to your illustration in this
5 Exhibit 38, we see the tractor frame rail to the right
6 of the view, the inlet pipe as we're seeing
7 progressing from the frame rail downward, that
8 particular cavity and opening extending into the
9 engine compartment is open. There are no guards,
10 shrouds, or shields in this area. So if a smoke event
11 is occurring within/near the area of the inlet pipe,
12 it can be aspirated into this area and travel beneath
13 the cab.

14 Q. Okay. If the wind was blowing from left to right,
15 would you have expected the smoke to emanate that
16 direction into the wind and up under the cab?

17 A. It depends upon where the smoke traveled to, where if
18 it traveled beneath the cab and was entrained in the
19 cooling airflow, it could be pushed under the cab, and
20 then whichever way it's ventilating or leaving from
21 there, whether it's directed by the air stream outside
22 or not, I couldn't say. That would have a greater
23 control of where the smoke would travel under the cab.

24 Q. In your file you had a section of the Babrauskas
25 Ignition Handbook. Do you know anything about this